

Attorney Docket No. HES 2000-IP-001843U1  
Haynes and Boone's Ref.: 30545.13  
Customer No. 000028857

**Amendments to the Claims:**

This listing of claims replaces all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1-36 (cancelled)

37. (New) A hydration tank comprising:

a set of walls defining a internal chamber;

an inlet in fluid communication with the chamber for introducing fluid into the chamber;

an outlet in fluid communication with the chamber for discharging the fluid from the chamber;

at least one weir extending from one of the walls and partially across the chamber towards an opposite wall, a surface of the weir being spaced from the opposite wall and defining, with the opposite wall, a first space for fluid flow between the weir and the opposite wall that varies along a dimension of the chamber; and

at least one additional weir extending from the opposite wall and partially across the chamber towards the one wall, a surface of the additional weir being spaced from the one wall and defining, with the one wall, a second space for fluid flow between the additional weir and the one wall that varies along another dimension of the chamber.

38. (New) The tank of claim 37 wherein the one wall and the opposite wall form side walls of the tank and wherein there is a top wall and a bottom wall between which the weirs extend.

39. (New) The tank of claim 38 wherein the weirs are attached to the top wall and to the bottom wall.

40. (New) The tank of claim 38 where the first space increases in a direction from the top wall to the bottom wall and wherein the second space decreases in a direction from the top wall to the bottom wall.

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41. (New) The tank of claim 40 wherein the fluid flows in a general direction from the one wall, downwardly towards the opposite wall, through the first space, and upwardly towards the one wall.

42. (New) The tank of claim 37 wherein the one wall and the opposite wall form side walls of the tank and wherein there are two end walls connected to the side walls.

43. (New) The tank of claim 37 wherein the weirs extend generally parallel to each other and to the end walls.

44. (New) The tank of claim 42 wherein the inlet is formed through one of the end walls and the outlet is formed through the other end wall.

45. (New) The tank of claim 37 wherein the surface of the one weir extends at an angle to the opposite wall, and wherein the surface of the additional weir extends at an angle to the one wall.

46. (New) The tank of claim 37 wherein there are a plurality of weirs extending from the one wall and a plurality of weirs extending from the opposite wall, the weirs extending from the one wall being disposed in an alternating relationship with the weirs extending from the opposite wall along the length of the tank.

47. (New) A hydration method comprising:  
defining an internal chamber within a set of walls;  
introducing fluid into the chamber;  
providing at least one weir extending from one of the walls and partially across the chamber towards an opposite wall;  
spacing a surface of the weir from the opposite wall and defining, with the opposite wall, a first space for fluid flow between the weir and the opposite wall that varies along a dimension of the chamber;

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providing at least one additional weir extending from the opposite wall and partially across the chamber towards the one wall,

spacing a surface of the additional weir from the one wall and defining, with the one wall, a second space for fluid flow between the additional weir and the one wall that varies along another dimension of the chamber; so that the fluid flows from the inlet and through the spaces; and

then discharging the fluid from the chamber.

48. (New) The method of claim 47 wherein the one wall and the opposite wall form side walls of the tank and wherein there is a top wall and a bottom wall between which the weirs extend.

49. (New) The method of claim 48 further comprising attaching the weirs to the top wall and to the bottom wall.

50. (New) The method of claim 48 where the first space increases in a direction from the top wall to the bottom wall and wherein the second space decreases in a direction from the top wall to the bottom wall.

51. (New) The method of claim 50 wherein the fluid flows in a general direction from the one wall, downwardly towards the opposite wall, through the first space, and upwardly towards the one wall.

52. (New) The method of claim 47 wherein the one wall and the opposite wall form side walls of the tank and wherein two end walls extend parallel to the weirs.

53. (New) The method of claim 52 wherein the weirs extend generally parallel to each other and to the end walls.

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54. (New) The method of claim 52 further comprising forming an Inlet through one of the end walls for introducing the fluid and forming an outlet through the other end wall for discharging the fluid.

55. (New) The method of claim 47 further comprising disposing the surface of the one weir at an angle to the opposite wall, and disposing the surface of the additional weir at an angle to the one wall.

56. (New) The method of claim 47 wherein there are a plurality of weirs extending from the one wall and a plurality of weirs extending from the opposite wall, and further comprising disposing the weirs extending from the one wall in an alternating relationship with the weirs extending from the opposite wall along the length of the tank.